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Building Public Confidence in Nuclear Activities

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Building Public Confidence in Nuclear Activities

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Abstract *– Achieving public acceptance has become a central issue in discussions regarding the future of nuclear power and associated nuclear activities. Effective public communication and public participation are often put forward as the key building blocks in garnering public acceptance. A recent international workshop in Finland provided insights into other features that might also be important to building and sustaining public confidence in nuclear activities.*

The workshop was held in Finland in close cooperation with Finnish stakeholders. This was most appropriate because of the recent successes in achieving positive decisions at the municipal, governmental, and Parliamentary levels, allowing the Finnish high-level radioactive waste repository program to proceed, including the identification and approval of a proposed candidate repository site

Much of the workshop discussion appropriately focused on the roles of public participation and public communications in building public confidence. It was clear that well constructed and implemented programs of public involvement and communication and a sense of fairness were essential in building the extent of public confidence needed to allow the repository program in Finland to proceed.

It was also clear that there were a number of other elements beyond public involvement that contributed substantially to the success in Finland to date. And, in fact, it appeared that these other factors were also necessary to achieving the Finnish public acceptance. In other words, successful public participation and communication were necessary but not sufficient. What else was important?

Culture, politics, and history vary from country to country, providing differing contexts for establishing and maintaining public confidence. What works in one country will not necessarily be effective in another. Nonetheless, there appear to be certain elements that might be common to programs that are successful in sustaining public confidence, and some of these features may be applicable across the sphere of nuclear endeavors.

I. INTRODUCTION

It is still hard to argue with Rosa and Freudenberg when they pointed out almost a decade ago that nuclear technology has become the most controversial technology of our time.[1] The recent history in attempting to site nuclear facilities is replete with cases where opposition was strong, unyielding, and often successful. And as Litmanen has stated, "In some countries it seems that massive local resistance has played a more important role in changing national nuclear waste policy than bigger environmental organizations….Public authorities have often felt helpless because there appears to be a rule that the public opposes all large construction projects. Important societal questions have to be solved – but how can they when people refuse to cooperate?"[2] Of course this opposition intensifies when it is a nuclear facility being proposed and is taken up yet another notch when it is a possible permanent repository for nuclear wastes.

A recent international workshop in Finland provided insights on features that may be important to building and sustaining public confidence in nuclear activities. By evaluating the actions and factors that have led to a largely positive reaction to the proposed siting of a high-level radioactive waste repository in Finland, some general lessons may apply both to repository developments in other counties and to other nuclear activities as well.

On November 14-16, 2001, the Nuclear Energy Agency sponsored a meeting of its Forum on Stakeholder Confidence (FSC) in Turku, Finland. This Third FSC workshop focused on, "Understanding the factors that influence public perception and confidence in the area of radioactive waste management…." The workshop was held in Finland in close cooperation with Finnish stakeholders. This was most appropriate because of the recent successes in achieving positive decisions at the municipal, governmental, and Parliamentary levels, which allowed the Finnish high-level radioactive waste repository program to proceed, including the identification and approval of a proposed site. The workshop objective was to gain insight in answering the question, "How did this political and societal decision come about?"

II. THE IMPORTANCE OF PUBLIC INVOLVEMENT IN BUILDING PUBLIC CONFIDENCE

It is clear that while governments and private organizations have responsibilities in carrying our radioactive waste programs, societal consent is required. Thus there remains an important role for the public, and an open and transparent process is necessary to maintain their support. Often the public will support decisions that they may not agree with if they believe the process in reaching the decision was fair.

Much of the workshop discussion appropriately focused on the roles of public participation and public communications in building public confidence. And it was clear that well constructed and implemented programs of public involvement and communication and a sense of fairness were essential in building the extent of public confidence needed to allow the repository program in Finland to proceed. This is very much in keeping with much of the now rather traditional view that the road to public confidence and acceptance lies very much in meeting with, talking to, and listening to the interested public. And in fact in Finland, according to Hokkanen, "the aim of the (Environmental Impact Assessment) Act is to improve the assessment and consideration of environmental impacts in planning and decision making as well as to increase public information and public participation."[3]

In particular, consistent with Finnish culture and institutional and political arrangements, there appears to be a focus on local and to a lesser extent, regional involvement. Numerous Finnish examples of public participation elements implemented over significant time periods demonstrated the value of such programs. Indeed they continue to be essential for public acceptance to be achieved and then sustained. It was clear that the emphasis is on ensuring an appropriate and fair process, not just on developing a project.

Significantly enhancing this has been the development, public involvement, and subsequent approval of the Decision in Principle, providing the clear national agreement on the need for disposal. This, accompanied by clear roles and responsibilities among the implementor (Posiva), regulator (STUK), the public, municipalities, government and parliament, have defined a process and an agreed goal that have led to increasing confidence over time.

It was also clear that there were a number of other elements beyond public involvement that contributed substantially to the success in Finland to date. And, in fact, it appeared that these other factors were also necessary to achieving the Finnish public acceptance. In other words, successful public participation and communication were necessary but not sufficient. What else was important?

III. WHAT ELSE CREATES PUBLIC CONFIDENCE?

In addition to well-planned and executed programs of public participation and communication, there appeared to be three major additional elements that significantly contribute to building and maintaining public confidence. These may apply both in Finland in general and in the municipality of Eurajoki, which has volunteered to host site characterizations to determine if a repository can suitably be built there. Summarized, they are:

1) Competence. The implementors and regulators are seen as competent and have demonstrated competence over an extended period of time;

2) Good intentions. The implementors, regulators, and other major participants are seen as well intentioned and wanting to do what is in the best interests of the host municipality in particular, and the general population;

3) A willingness to change to meet public concerns. Implementors, in particular, are willing to engage affected communities in frank and open discussions. They are interested in understanding the concerns that might exist and are willing and flexible enough to change program elements to deal with such concerns.

III.A. Competence

We learned that Finnish culture is most often based upon consensual decision making. They demonstrate an impressive ability to discuss contentious issues fully, and to disagree, but then reach political consensus. And once they do, the culture is such that all then take part is seeing that the decision is implemented as effectively as possible.

Municipalities play a central role and must say yes if siting is to occur. Beyond that, the "State" has dominance in many matters and the political elite tend to know each other and in some senses operate as a "club."

Importantly in this framework, there appears to be a high level of trust in institutions such as the police armed forces, and church. And there is an inherent confidence that science and technology, put to appropriate uses, can help solve most problems. Those responsible in Finland for nuclear activities seem to enjoy much of the same confidence.

The Finnish nuclear experience supports this confidence. They have a fine track record in the application of science and technology and exhibit a national pride in Finnish technical capabilities. Specifically, they have had positive experiences to date in the operation of the four Finnish nuclear power plants and the low and intermediate level waste facility that is in operation. It is no accident that two of the reactors and the waste facility are located in the volunteer municipality of Eurajoki. They are familiar with nuclear projects, citizens in the community work at these facilities, and they have confidence that the implementor (Posiva) and regulator (STUK) know what they are doing, and will do what's necessary to assure safety and protect the citizenry.

Posiva and the other nuclear organizations have been most willing to develop these capabilities and demonstrate competence with step-wise decision making. Both in the sequential development of the nuclear facilities in Eurajoki municipality and in the larger National nuclear and repository programs, they are willing to take numerous sequential steps and the time necessary to earn the public confidence that comes with doing each successive job well.

III.B. Good Intentions

Competence alone does not guarantee confidence. The public must also believe that the involved parties have the citizenry's best interests foremost in mind as they move forward.

Here, too, the Finnish culture and experience provides a foundation for public confidence. There is an emphasis on safety in society, both for local affected communities and for the common national benefit.

Perhaps most important is the absolute veto of the potential host municipality. By guaranteeing the siting of a repository only where it is wanted, the process builds in a very high degree of control by those most affected and assures that their interests and concerns will be carefully addressed.

Decisions have been made with such priority in mind both at the national and municipal level. In 1983, importantly, there was a decision to stop exporting spent nuclear fuel to the (then) Soviet Union, and to accept responsibility for ultimate disposal within Finland. The decision included the objective of finding a suitable site by 2000, and they took that commitment seriously. Thus the recent decisions.

There was also a 1993 Parliamentary decision to reject a new nuclear power plant, demonstrating again that new facilities were not inevitable, but should be considered in the context of the Finnish needs. While the authorities are once again considering the need for an additional plant, the decision on the future of nuclear power is not linked directly to the current waste decisions, helping to keep them from being overly politicized.

Thus numerous stepwise developments all provided confidence to the public that reasonable next steps in approving a Decision in Principle and a municipality acceptance for repository development would keep public safety and overall societal good preeminent. Among these were:

- the sequential development of four successful nuclear power plants,
- the construction of the existing low and intermediate level waste repositories,
- the existence of facilities for spent nuclear fuel storage,
- the decisions to neither export nor import spent fuel,
- the early rejection of a proposed new nuclear plant,
- the absolute veto authority of any municipality in siting the repository.

Adding to this sense of confidence is the commitment for many future steps and decisions before final decision is taken to construct, operate, and ultimately close the repository. Integral to this progress is the explicit option for waste retrievability in the future. And the municipality

also relies on its confidence in the regulator to oversee the developments and to have their best interests at heart. In fact this confidence is so strong that there is little evidence of public concern about long term safety of the repository; they are confident that those in charge will either assure long term safety or they will not build the repository.

III.C. Frank Discussions and a Willingness to Change

The third element that appeared to be important in building the public confidence was a commitment to continuing meaningful discussions that were truly two-way. The major organizations responsible for implementation and oversight wanted to not only inform the public of their decision and plans, but to engage them such that public concerns and interests were identified and dealt with in a proactive manner.

Given the autonomy of the municipality in Finland, there is a priority with the implementor and regulator to "satisfy your customers needs. And in this case, the customers are principally the local public and local decision makers." The regulator in particular, is seen as on the side of the municipalities and reliable. To demonstrate their commitment, the highest level of STUK management is quite visible in the municipality and works hard to ensure that the process fully engages the local public and its elected representatives. They and the other participants realize that building and maintaining trust takes time and requires the successful completion of many steps and continual dialogue. They seem committed to do what it takes.

There were many chances to erode public confidence. In particular, the initial municipal decision did not accept the concept of spent fuel disposal, a decision that was subsequently reversed over a period of years. But the stepwise, transparent, and open process, particularly with the affected municipalities and their citizens has kept progress on track. This is aided in no small degree by the mature and thoughtful approach taken by virtually everyone we met from Finland. As was said, debate takes the form of "enlightenment by intellectuals," not by a political and media circus. All of the Finnish individuals with whom we met, including those skeptical of or against the repository program, were able to artfully express their views and have them taken seriously and with respect.

Since there is a general sense that the regulator and implementor are competent and well intentioned regarding assuring the performance of the repository for geological time periods, the local community appears to be most interested in "above ground, every day things." And when it comes to impacts, "citizens are the experts of local questions." The emphasis is less on allaying concerns than on fixing them.

Therefore, the focus has been on safety and municipal needs. Interestingly, there is no provision for compensation to a host community, something that is expected as a part of many other national programs. Yet Posiva has worked carefully with the municipality of Eurajoki to develop a win/win arrangement. A current home for the elderly, housed in a historic building, will be renovated and then used to house program officials while the rent is devoted to constructing a new, modern facility for the elderly. This type of careful and thoughtful cooperation appears to build not only a sense of fairness, but of shared ownership.

IV. CONCLUSIONS

Culture, politics, and history vary from country to country, providing differing contexts for establishing and maintaining public confidence. What works in one country will not necessarily be effective in another. Clearly, effective programs of public communication and public participation are among important features Nonetheless, there appear to be certain additional elements that might be common to programs that are successful in sustaining public confidence. These elements were clearly on display in Finland.

- The need for the program is clearly established
- Roles and responsibilities of the players are well understood
- Respect of the need for societal consent is apparent
- A clear, open, and transparent process is used in decision making
- There are many sequential steps taken as the program unfolds that include the possibility of altering or reversing course
- Program officials recognize that due deliberative process takes time and are willing to invest the time

In addition, these three factors also may be important to achieving public confidence and support even when the above factors are evident:

- Responsible organizations are seen as competent by the public and have demonstrated their competence
- Responsible organizations are believed to be well intentioned, that is to have the best interests of the public at heart as they implement their programs
- Responsible organizations are willing to engage in frequent frank discussions with stakeholders and to adapt program decisions to deal directly with stakeholder concerns and considerations

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